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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/518,368

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Philippe Leyvraz

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EXAMINER

HEINRICH, SAMUEL M

ART UNIT

PAPER NUMBER

3742

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/518,368	<b>Applicant(s)</b> LEYVRAZ, PHILIPPE	
	<b>Examiner</b> Samuel M. Heinrich	<b>Art Unit</b> 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31, 33, 34 and 36-38 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31, 33, 34 and 36-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/17/2004; 11/06/2008</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-31, 33, 34, and 36-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 16, 29, and 33, the independent claims recite in the first paragraph “including a two-dimensional point...” which causes the exact scope of the claims to be unclear. The dependent claims do not clarify the scope of the independent claims.

Claims 16, 29, and 33 recite limitations comprising “e.g.” which causes the exact scope of the claims to be unclear. The dependent claims do not clarify the scope of the independent claims.

Claims 17 and 20 comprise parenthetical limitations which causes the exact scope of the claims to be unclear. The dependent claims do not clarify the scope of the independent claims.

Claims 3, 4, 33, and 34 recite “preferably” and “very particularly preferred” which causes the exact scope of the claims to be unclear.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-31, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,160,568 to Brodsky et al in view of USPN 6,211,485 to Burgess in view of USPN 5,172,326 to Campbell, Jr. et al and further in view of US20010023825A1 to Frumin et al in view of USPN 6,621,041 to Hayashi et al.

AAPA describes (Specification, State of the Art) well known laser marking, mirror beam guides, glass texturing with laser wavelengths of about 193nm to about 351nm, workpiece transport, glass bottle workpiece, and inspection of engraved marks using a CCD camera.

Brodsky et al describe (column 1, lines 36+) well known use of laser marking with a coated surface wherein the beam is steered in multiple dimensions with mirrors, and describe (column 11, lines 8-12) employing glass as a workpiece, and describe (e.g., Claim 30) use of feedback for control of the laser. Brodsky et al describe a chemical reaction which provides a visible change under the influence of a laser beam.

Burgess describes (column 10, lines 20-25) monitoring and rejecting or removing a workpiece from the laser drill system.

Campbell, Jr. describe a laser cutting means and work conveyor means including "means for controlling said movable laser beam cutting means and said conveying means to cut the web by simultaneously moving said conveying means and said movable laser beam cutting means".

Frumin et al describe [0274] detection by "measuring the scattered light intensity as known in the art". Frumin et al describe [0083] CCD camera.

Hayashi et al describe (e.g., column 2, lines 4—46) marking resulting in "changes in brightness or darkness".

The use of automated feedback or monitoring with AAPA would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it provides rapid operation and reduces human monitoring.

The particular claimed etch dimensions, locations, and beam energies would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art depending on the particular workpiece.

The particular marking, code marking, or point coding etch sequences, shapes, and locations would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art depending on the known workpieces which are being marked.

The use of modern detection using changes in brightness would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art in order to monitor detailed work.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,160,568 to Brodsky et al in view of USPN 6,211,485 to Burgess in view of USPN 5,172,326 to Campbell, Jr. et al and further in view of US20010023825A1 to Frumin et al in view of USPN 6,621,041 to

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Hayashi et al as applied to claim 1 above, and further in view of USPN 5,321,227 to Fuchs et al.

Fuchs et al describe (Abstract) "large focussing depth spanning several millimeters".

The particular claimed focus depth would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art depending on properties desired for a particular workpiece.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,160,568 to Brodsky et al in view of USPN 6,211,485 to Burgess in view of USPN 5,172,326 to Campbell, Jr. et al and further in view of US20010023825A1 to Frumin et al in view of USPN 6,621,041 to Hayashi et al as applied to claim 1 above, and further in view of USPN 5,874,011 to Ehrlich.

Ehrlich describes (column 12, lines 34-51) laser etching comprising use of energy density "is generally kept below about 3 Joules/cm.sup.2."

The particular claimed energy density would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art depending on desired etching of a particular workpiece.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,160,568 to Brodsky et al in view of USPN 6,211,485 to Burgess in view of USPN 5,172,326 to Campbell, Jr. et al and further in view of USPN 5,321,227 to Fuchs et al.

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AAPA describes (Specification, State of the Art) well known laser marking, mirror beam guides, glass texturing with laser wavelengths of about 193nm to about 351nm, workpiece transport, glass bottle workpiece, and inspection of engraved marks using a CCD camera.

Brodsky et al describe (column 1, lines 36+) well known use of laser marking with a coated surface wherein the beam is steered in multiple dimensions with mirrors, and describe (column 11, lines 8-12) employing glass as a workpiece, and describe (e.g., Claim 30) use of feedback for control of the laser. Brodsky et al describe a chemical reaction which provides a visible change under the influence of a laser beam.

Burgess describes (column 10, lines 20-25) monitoring and rejecting or removing a workpiece from the laser drill system.

Campbell, Jr. describe a laser cutting means and work conveyor means including "means for controlling said movable laser beam cutting means and said conveying means to cut the web by simultaneously moving said conveying means and said movable laser beam cutting means".

Fuchs et al describe (Abstract) "large focussing depth spanning several millimeters".

The use of automated feedback or monitoring with AAPA would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it provides rapid operation and reduces human monitoring.

The particular claimed focus depth would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art depending on properties desired for a particular workpiece.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,160,568 to Brodsky et al in view of USPN 6,211,485 to Burgess in view of USPN 5,172,326 to Campbell, Jr. et al and further in view of USPN 5,321,227 to Fuchs et al as applied to claim 33 above, and further in view of USPN 5,874,011 to Ehrlich.

Ehrlich describes (column 12, lines 34-51) laser etching comprising use of energy density "is generally kept below about 3 Joules/cm.sup.2."

The particular claimed energy density would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art depending on desired etching of a particular workpiece.

Claims 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,160,568 to Brodsky et al in view of USPN 6,211,485 to Burgess in view of USPN 5,172,326 to Campbell, Jr. et al and further in view of US20010023825A1 to Frumin et al in view of USPN 6,621,041 to Hayashi et al as applied to claims 1, 16, and 29 above, and further in view of USPN 6,634,186 to Abe.

Abe describes (column 7, lines 26-43) laser cuts made "having a depth of 45 microns or below". The instant claimed dimension of at most 20 microns would have



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been obvious at the time applicant's invention was made to a person having ordinary skill in the art depending on desired etching of a particular workpiece.

### ***Response to Arguments***

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Flanagan describes etching and depth of focus of 0.5 mm. USPN 6,869,749 to Hayashi et al describes changes in brightness. Herman et al describe "etch depth to several 10's of microns."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu B. Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Samuel M Heinrich/  
Primary Examiner, Art Unit 3742